

IFW

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: 8-20-04 Signature: Maura A. Gallagher
(Maura A. Gallagher)

Docket No.: SION-P01-001
(PATENT)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Patent Application of:
Miller et al.

Application No.: 10/821812

Confirmation No.: 9060

Filed: April 8, 2004

Art Unit: 2881

For: EXPLOSIVES DETECTION USING
DIFFERENTIAL ION MOBILITY
SPECTROMETRY

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent,

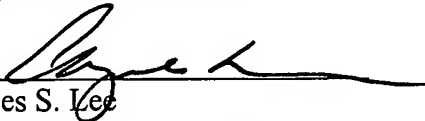
publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 18-1945, under Order No. SION-P01-001.

Dated: August 20, 2004

Respectfully submitted,

By 
Agnes S. Lee

Registration No.: 46,862
ROPES & GRAY LLP
One International Place
Boston, Massachusetts 02110-2624
(617) 951-7000
(617) 951-7050 (Fax)
Attorneys/Agents For Applicant



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/821812
				Filing Date	April 8, 2004
				First Named Inventor	Raanan A. Miller
				Art Unit	2881
				Examiner Name	Not Yet Assigned
Sheet	1	of	4	Attorney Docket Number	SION-P01-001

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A1	2,615,135	10/21/52	Glenn, Jr., W.E.	
	A2	2,818,507	12/31/57	Britten, R.J.	
	A3	2,919,348	12/29/59	A. Bierman	
	A4	3,511,986	05/12/70	P.M. Llewellyn	
	A5	3,621,240	11/15/71	Cohen, et al.	
	A6	3,931,589	01/06/76	Aisenberg, et al.	
	A7	4,019,989	04/26/77	Hazewindus, et al.	
	A8	4,025,818	05/24/77	Giguere, et al.	
	A9	4,136,280	01/23/79	Hunt, et al.	
	A10	4,201,921	05/06/80	McCorkle	
	A11	4,315,153	02/09/82	Vahrenkamp	
	A12	4,517,462	05/14/85	Boyer, et al.	
	A13	4,761,545	08/02/88	Marshall, et al.	
	A14	5,218,203	June-93	Eisele, et al.	
	A15	5,298,745	03/29/94	Kernan, et al.	
	A16	5,420,424	05/30/95	Carnahan, et al.	
	A17	5,479,815	01/02/96	White, et al.	
	A18	5,455,417	10/03/95	Sacristan	
	A19	5,508,204	04/16/96	Norman	
	A20	5,536,939	07/16/96	Freidhoff, et al.	
	A21	5,654,544	08/05/97	Dresch	
	A22	5,723,861	03/03/98	Carnahan, et al.	
	A23	5,736,739	04/07/98	Uber, et al.	
	A24	5,763,876	06/09/98	Perinarides, et al.	
	A25	5,789,745	08/04/98	Martin, et al.	
	A26	5,801,379	09/01/98	Kouznetsov	
	A27	5,834,771	11/10/98	Yoon, et al.	
	A28	5,838,003	11/17/98	Bertsch, et al.	
	A29	5,869,344	02/09/99	Linfirth, et al.	
	A30	5,965,882	10/12/99	Megerle, et al.	
	A31	6,066,848	05/23/00	Kassel, et al.	
	A32	6,107,624	Aug-00	Doring, et al.	
	A33	6,124,592	09/26/00	Spangler	
	A34	6,180,414	01/30/01	Katzman	
	A35	6,239,428	May-01	Kunz	
	A36	6,323,482	11/17/01	Clemmer, et al.	
	A37	6,495,823	12/17/02	Miller, et al.	
	A38	6,504,149	01/07/03	Guevremont, et al.	
	A39	6,540,691	04/01/03	Phillips	
	A40	6,512,224	Jan-03	Miller, et al.	
	A41	6,621,077	9/16/03	Guevremont et al.	
	A42	US 2001/0030285 A1	10/18/01	Miller et al.	
	A43	US 2003/0089847 A1	5/15/03	Guevremont et al.	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

9520615_1

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/821812
				Filing Date	April 8, 2004
				First Named Inventor	Raanan A. Miller
				Art Unit	2881
				Examiner Name	Not Yet Assigned
Sheet	2	of	4	Attorney Docket Number	SION-P01-001

	A44	US 2002/0134932 A1	9/26/02	Guevremont et al.	
	A45	US 2003/0020012 A1	1/30/03	Guevremont et al.	
	A46	US 2003/0038235 A1	2/27/03	Guevremont et al.	
	A 47	US 2002/0070338 A1	6/13/02	Loboda	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)					
	B1	SU	966583	10/15/1982	Gorshkov, M.P.		
	B2	SU	1337934A2	09/15/1987	Buryakov, I.		
	B3	SU	1405489 A1	10/06/1998	Buryakov, I., et al.		
	B4	SU	1412447A1	06/20/1998	Buryakov, I., et al.		
	B5	SU	1485808	10/06/1998	Buryakov, I., et al.		
	B6	SU	1627984A2	07/20/1988	Buryakov, I.		
	B7	WO	00/08454	02/17/2000	National Research Council Canada		
	B8	WO	00/08455	02/17/2000	National Research Council Canada		
	B9	WO	00/08456	02/18/2000	National Research Council Canada		
	B10	WO	00/08457	02/19/2000	National Research Council Canada		
	B11	WO	01/08197A1	02/01/2001	National Research Council Canada		
	B12	WO	01/22049A2	03/29/2001	Haley, L., et al.		
	B13	WO	01/35441A1	05/17/2001	National Research Council Canada		
	B14	WO	01/69220 A2	09/09/2001	National Research Council Canada		
	B15	WO	01/69647 A2	09/20/2001	National Research Council Canada		
	B16	WO	02/071053 A	09/09/2002	The Charles Stark Draper Lab		
	B17	WO	02/083276 A1	10/24/02	The Charles Stark Draper Lab		
	B18	WO	03/005016 A1	1/16/03	Sionex Corporation		
	B19	WO	03/015120 A1	2/20/03	Sionex Corporation		
	B20	WO	97/38302	10/16/1997	Mine Safety Applicances		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/821812
				Filing Date	April 8, 2004
				First Named Inventor	Raanan A. Miller
				Art Unit	2881
				Examiner Name	Not Yet Assigned
Sheet	3	of	4	Attorney Docket Number	SION-P01-001

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C1	"A Micromachined Field Driven Radio Frequency-Ion Mobility Spectrometer for Trace Level Chemical Detection," A Draper Laboratory Proposal Against the "Advanced Cross-Enterprise Technology Development for NASA Missions," Solicitation, NASA NRA 99-OSS-05.	
	C2	BARNETT, D.A. et al., "Isotope Separation Using High-Field Asymmetric Waveform Ion Mobility Spectrometry," Nuclear Instruments & Methods in Physics Research (2000), pp 179-185, 450(1).	
	C3	BASILE, F., "A Gas Sample Pre-concentration Device Based on Solid Phase Microextraction (SPME) and Temperature Programmed Desorption (TPD)," Instrumentation Sci. Tech., (2003), pp 155-164, 31(2).	
	C4	BURYAKOV, I.A. et al., "A New Method of Separation of Multi-Atomic Ions by Mobility at Atmospheric Pressure Using a High-Frequency Amplitude-Asymmetric Strong Electric Field," International Journal of Mass Spectrometry and Ion Processes (1993), pp 143-148, 128.	
	C5	BURYAKOV, I.A. et al., "Drift Spectrometer for the Control of Amine Traces in the Atmosphere," J. Analytical Chem., (1993), pp 156-165, 48(1).	
	C6	BURYAKOV, I.A. et al., "Separation Ions According to Mobility in a Strong ac electric Field," Sov. Tech. Phs. Lett. (1991), pp 446-447, 17(6).	
	C7	BURYAKOV, I.A. et al., Device and Method For Gas Electrophoresis, Chemical Analysis fo Environment, edit. Prof. V.V. Malakhov, Novosibirsk; Nauka (1991), pp 113-127.	
	C8	CARNAHAN, B. et al., "Field Ion Spectrometry – A New Analytical Technology for Trace Gas Analysis," ISA, (1996), pp 87-96, 51(1).	
	C9	CARNAHAN, B. et al., "Field Ion Spectrometry – A New Technology for Cocaine and Heroin Detection," SPIE, (1997), pp 106-119, 2937.	
	C10	GUEVREMONT, R. and PURVES, R., "High Field Asymmetric Waveform Ion Mobility Spectrometry-Mass Spectrometry: An Investigation of Leucine Enkephalin Ions Produced by Electrospray Ionization," J. Am. Soc. Mass. Spectrom., (1999), pp 492-501, 10.	
	C11	GUEVREMONT, R. et al., "Calculation of Ion Mobilities From Electrospray Ionization High Field Asymmetric Waveform Ion Mobility Spectrometry Mass Spectrometry," Journal of Chemical Physics, (2001), pp 10270-10277, 114(23).	
	C12	GUEVREMONT, R. et al., "Atmospheric Pressure Ion Focusing in a High-Field Asymmetric Waveform Ion Mobility Spectrometer," Review of Scientific Instruments, (1999), pp 1370-1383, 70(2).	
	C13	HANDY, R. et al., "Determination of nanomolar levels of perchlorate in water by ESI-FAIMS-MS," JAAS (2000), pp 907-911, 15	
	C14	KRYLOV, E.V., "A Method of Reducing Diffusion Losses in a Drift Spectrometer," Technical Physics, (1999), pp 113-16, 4d(1).	
	C15	KRYLOV, E.V., "Pulses of Special Shapes Formed on a Capacitive Load," Instruments and Experimental Techniques, (1997), pp 628, 40(5).	
	C16	MILLER, R.A. et al., "A MEMS Radio-Frequency Ion Mobility Spectrometer for Chemical Agent Detection," (June 2000) Proceedings of the 2000 Solid State Sensors and Actuators Workshop, Hilton Head, SC.	
	C17	MILLER, R.A. et al., "A Novel Micromachined High-Field Asymmetric Waveform-Ion Mobility Spectrometer," Sensors and Actuators B, (2000) pp 300-306, B67 (3).	
	C18	PHILLIPS, M., "Method for the Collection and Assay of Volatile Organic Compounds in	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/821812
				Filing Date	April 8, 2004
				First Named Inventor	Raanan A. Miller
				Art Unit	2881
				Examiner Name	Not Yet Assigned
Sheet	4	of	4	Attorney Docket Number	SION-P01-001

		Breath," Analytical Biochemistry, (1997), pp 272-278, 247.	
	C19	PILZECKER, P. et al., "On-Site Investigations of Gas Insulated Substations Using Ion Mobility Spectrometry for Remote Sensing of SF6 Decomposition," IEEE, (2000), pp 400-403.	
	C20	RIEGNER, D.E. et al., "Qualitative Evaluation of Field Ion Spectrometry for Chemical Warfare Agent Detection," Proceedings of the ASMS Conference on Mass Spectrometry and Allied Topics (June, 1997), pp 473A-473B.	
	C21	SCHNEIDER, A. et al., "High Sensitivity GC-FIS for Simultaneous Detection of Chemical Warfare Agents," Mine Safety Appliances Co., Pittsburgh, PA, USA, (2000), AT-Process, pp 124-136, 5(3,4), CODEN: APJCFR ISSN: 1077-419X..	
	C22	SHUTE, L.A. et al., "Curie-point Pyrolysis Mass Spectrometry Applied to Characterization and Identification of Selected Bacillus Species," J. General Micro., (JGMIAN) (1984), pp 343-355, 130(2).	
	C23	EICEMAN, et al., "Miniature radio-frequency mobility analyzer as a gas chromatographic detector for oxygen-containing volatile organic compounds, pheromones and other insect attractants," J. Chrom., pp 205-217, 917 (2001).	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Application No. (if known): 10/821812

Attorney Docket No.: SION-P01-001

Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on August 20, 2004
Date

Maurya A. Gallagher

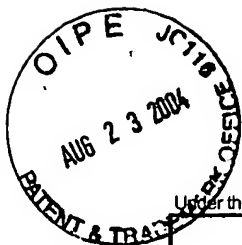
Signature

Maurya A. Gallagher

Typed or printed name of person signing Certificate

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

Transmittal Form (1page)
Information Disclosure Statement (2 pages)
IDS Form SB/08 (4 pages)
References (43) (B1-B20, C1-C23)
Return postcard



PTO/SB/21 (04-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/821812
	Filing Date	April 8, 2004
	First Named Inventor	Raanan A. Miller
	Art Unit	2881
	Examiner Name	Not Yet Assigned
Total Number of Pages in This Submission	Attorney Docket Number	SION-P01-001

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement (2 pages) <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): IDS Form SB/08 (4 Pages) References (42) (B1-B20, C1-C23) Return Receipt Postcard
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	ROPES & GRAY LLP Agnes S. Lee - 46,862
Signature	
Date	August 20, 2004

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: 8-20-04 Signature: Maura A. Gallagher Maura A. Gallagher